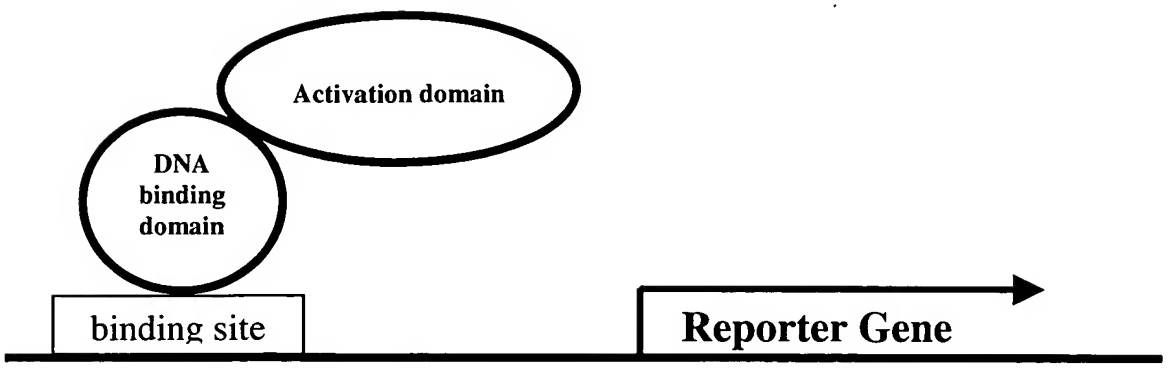

Activation domain
DNA
binding
domain
binding site
Reporter Gene

Fig. A

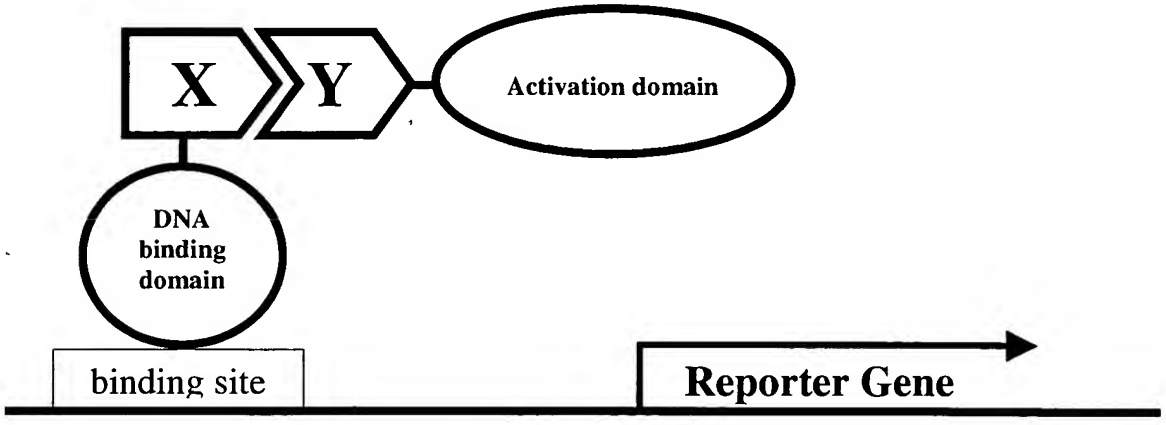

X
Y
Activation domain
DNA
binding
domain
binding site
Reporter Gene

Fig. B

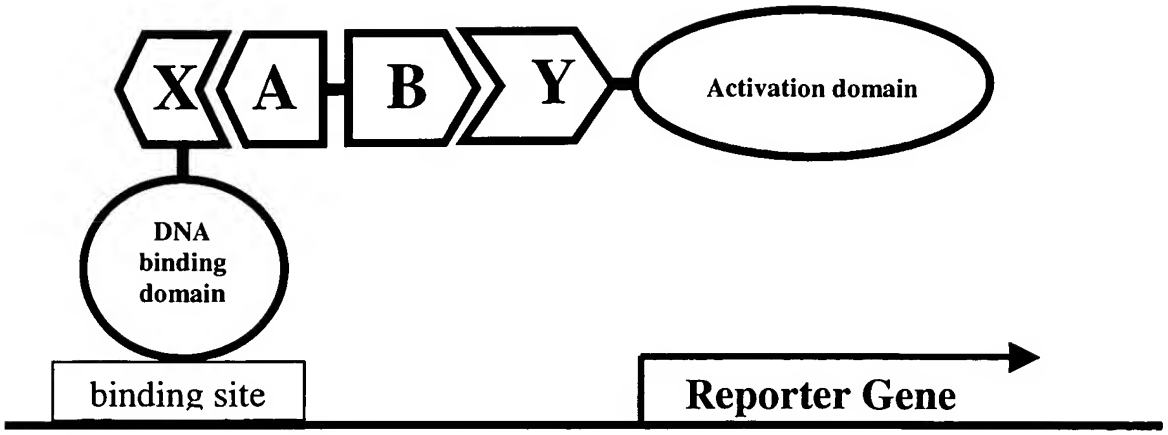

X
A
B
Y
Activation domain
DNA binding domain
binding site
Reporter Gene

Fig. C

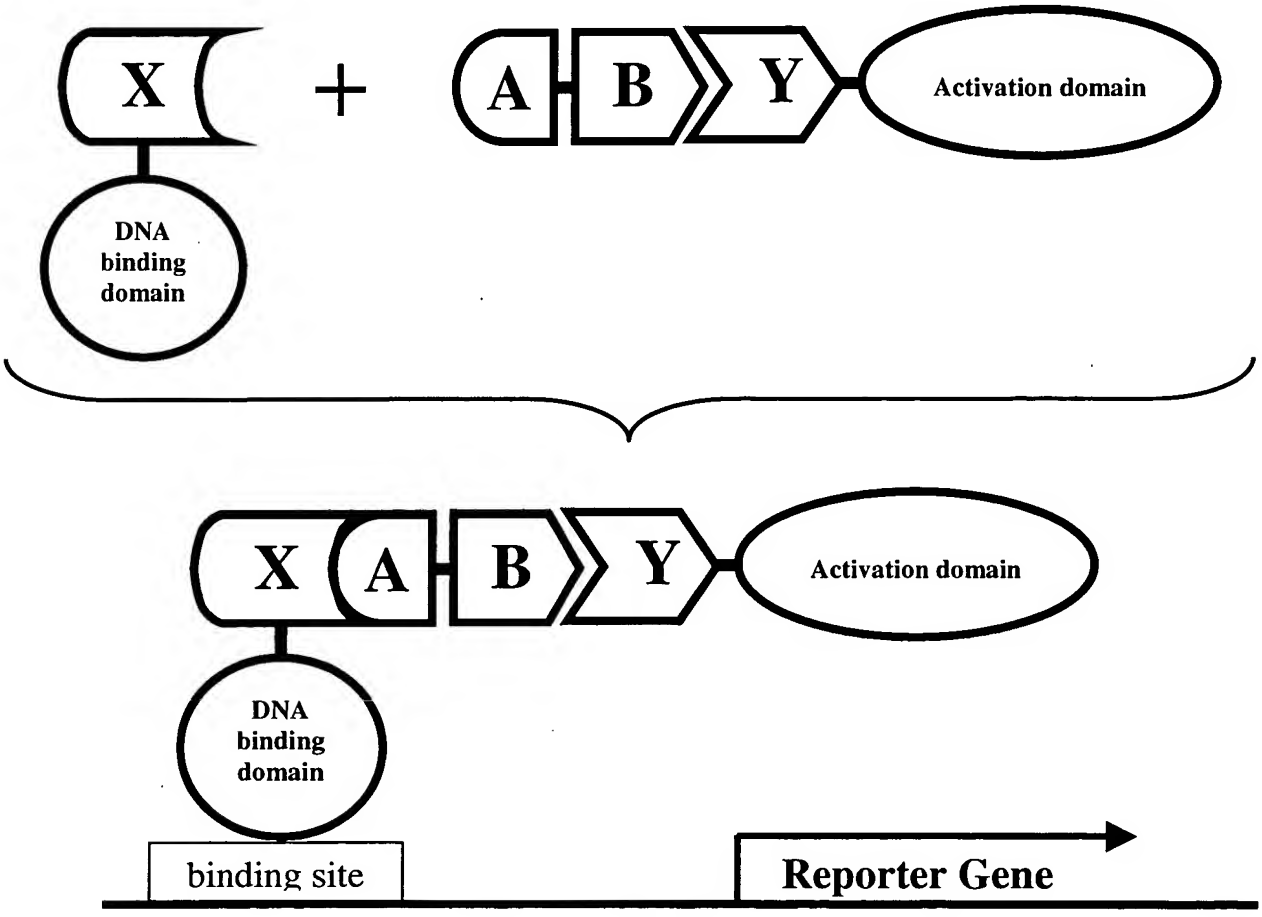

X
+
A
B
Y
Activation domain
DNA binding domain
X
A
B
Y
Activation domain
DNA binding domain
binding site
Reporter Gene

Fig. D

Figure 1. Two-hybrid system

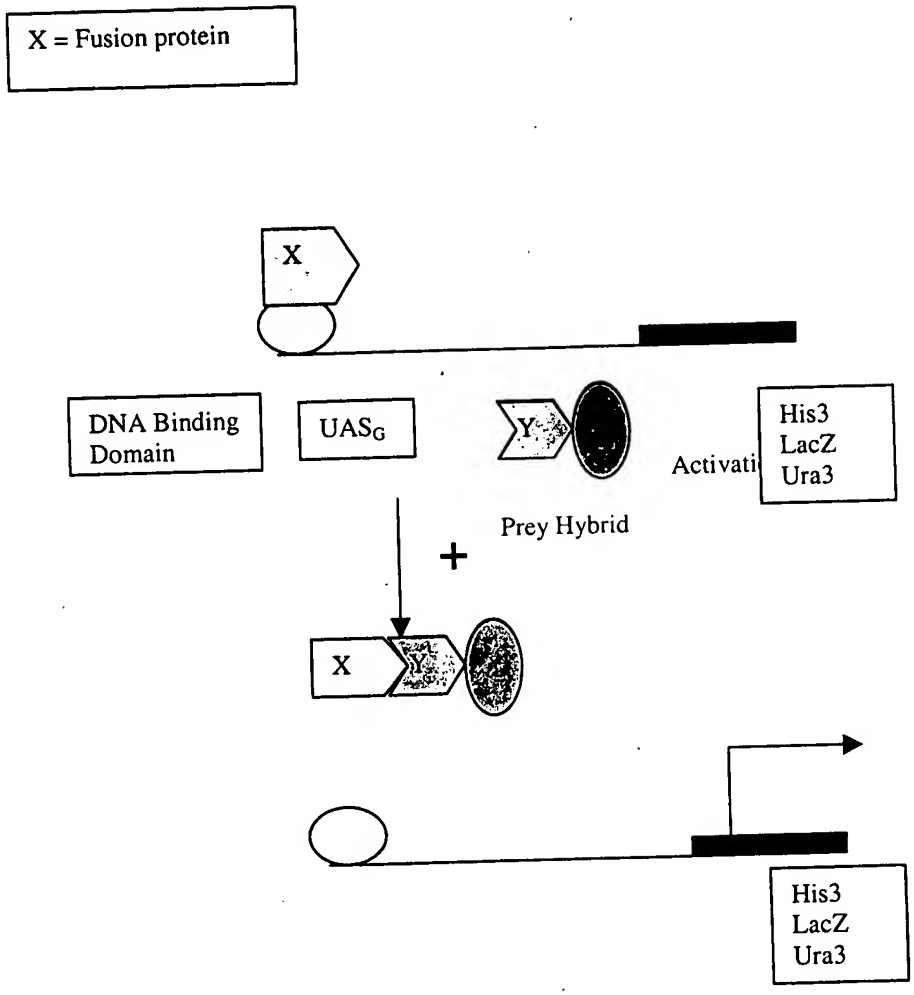


Figure. 2. A schematic representation of the Modified three-hybrid system (chemicalhybrid system).

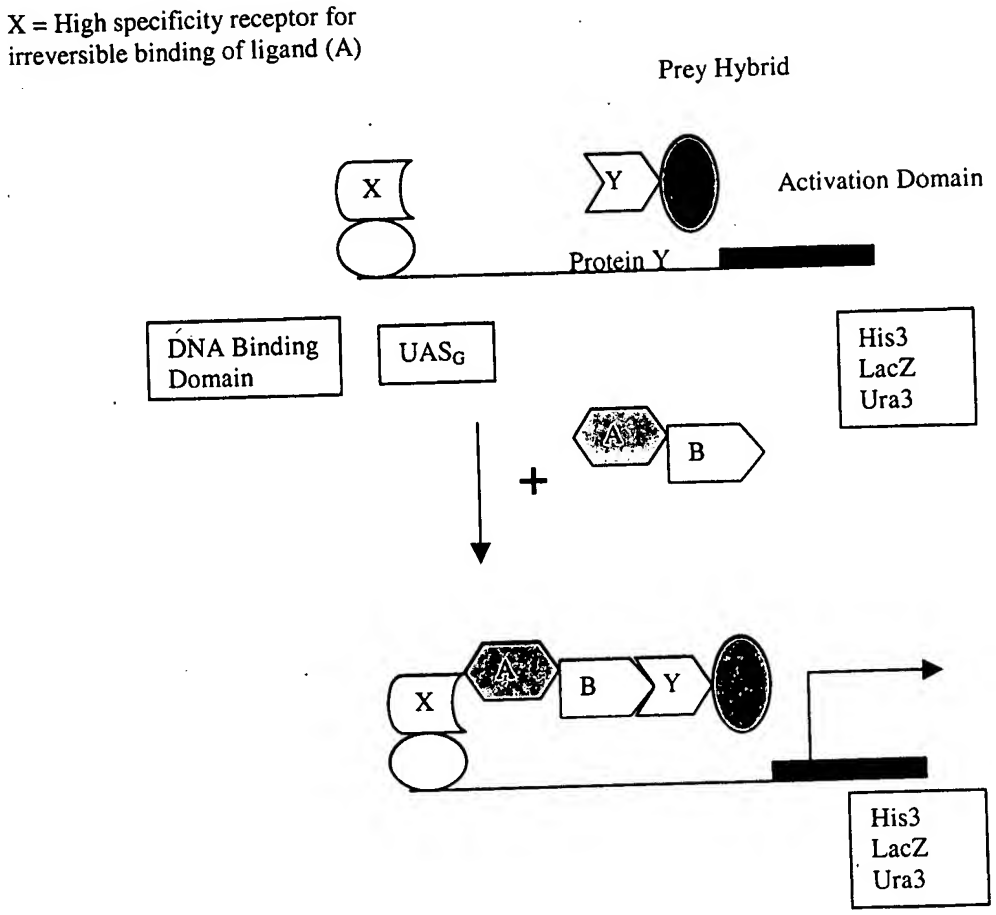
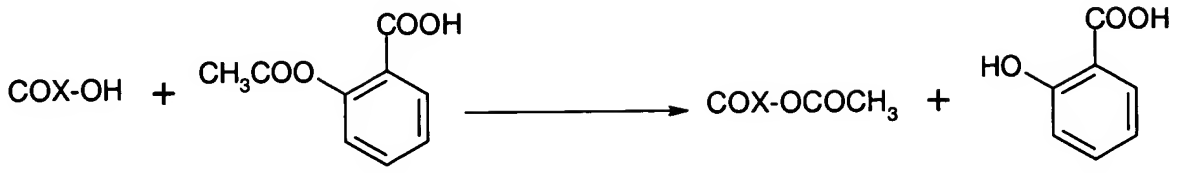
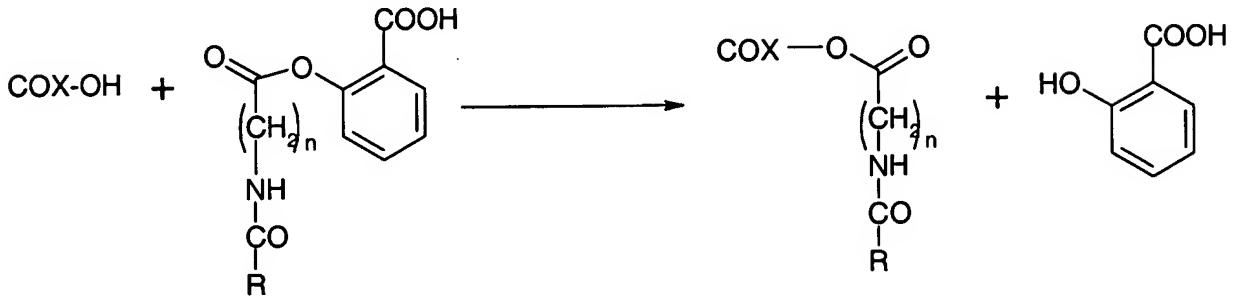


Figure 3: Affinity Labeling Agents

Cox-Aspirin Mechanism



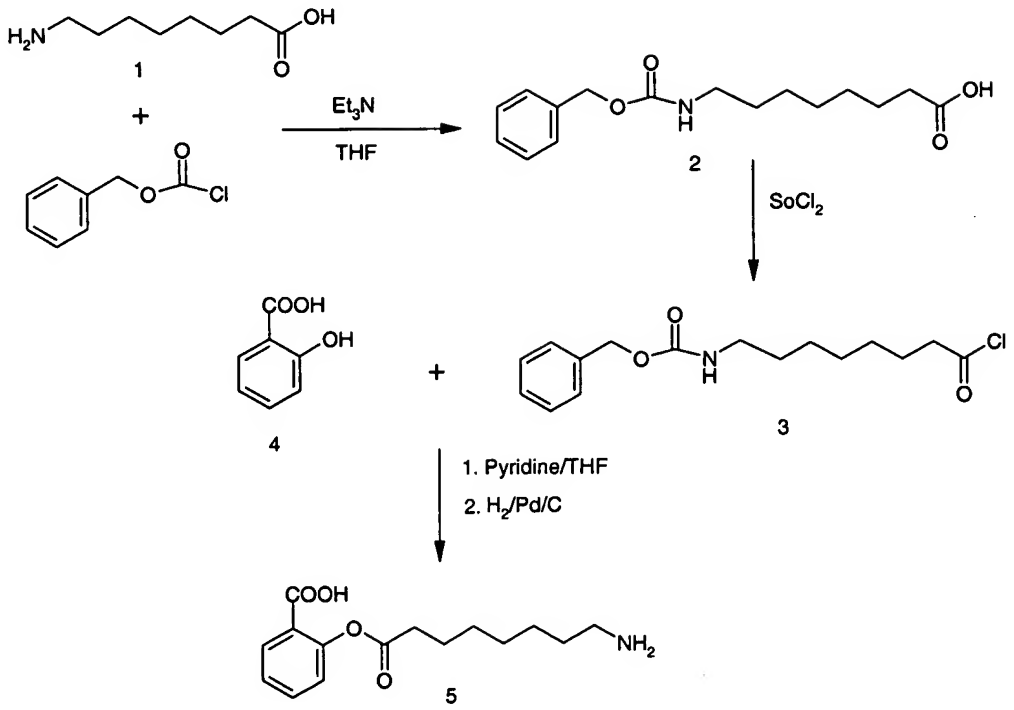
Example of covalent bonding of ligand to the target (Cox-Aspirin mechanism)



R = Dexamethasone; FK-506 or combinatorial compounds n = 0-20

Figure 4: Affinity Labeling Agents

Synthesis of aminoalkyl salicylate



Coupling of aminoalkyl salicyclate to dexamethasone

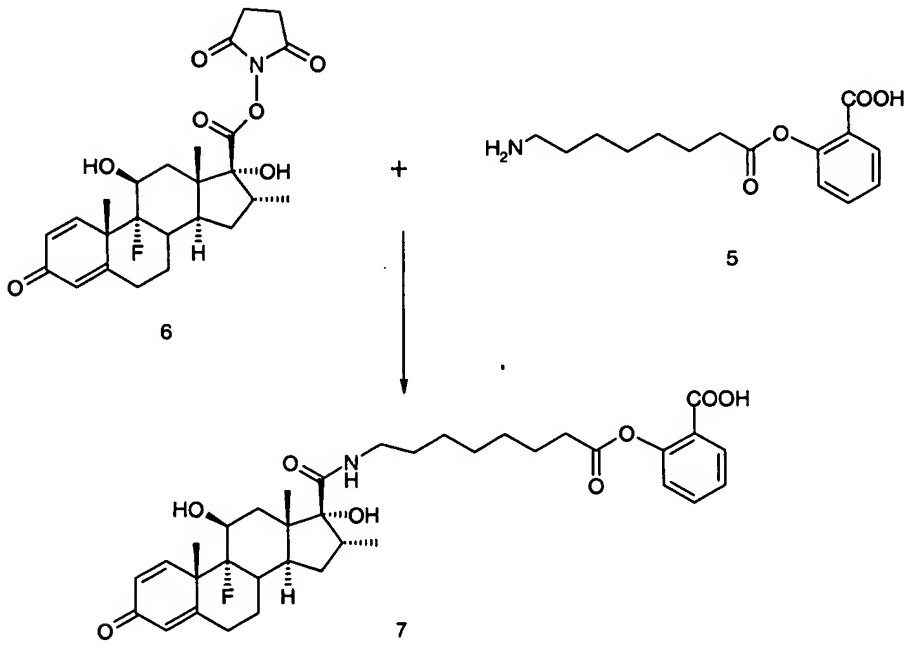
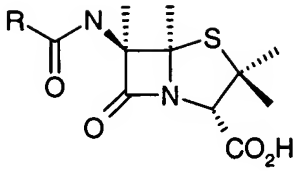


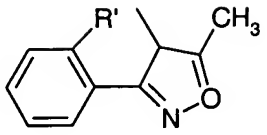
Figure 5: Affinity Labeling Agents

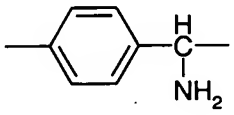
5a. Penicillins



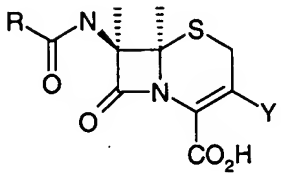
a. R = PhCH2-

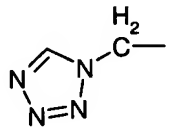
b. R = PhOCH2-

c. R = 

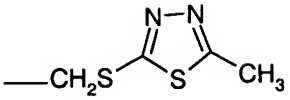
d. R = 

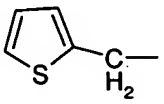
5b. Cephalosporins/cephamycins



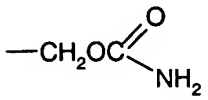
a. R = 

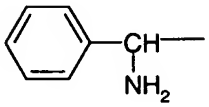
X = H

Y = 

b. R = 

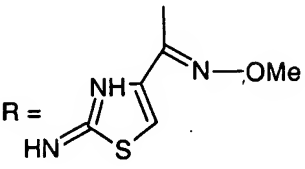
X = OCH3

Y = 

c. R = 

X = H

Y = Cl

d. R = 

X = H

Y = H

Figure 6: Mechanism based-inhibitors

Figure 6a. Vigabatrin

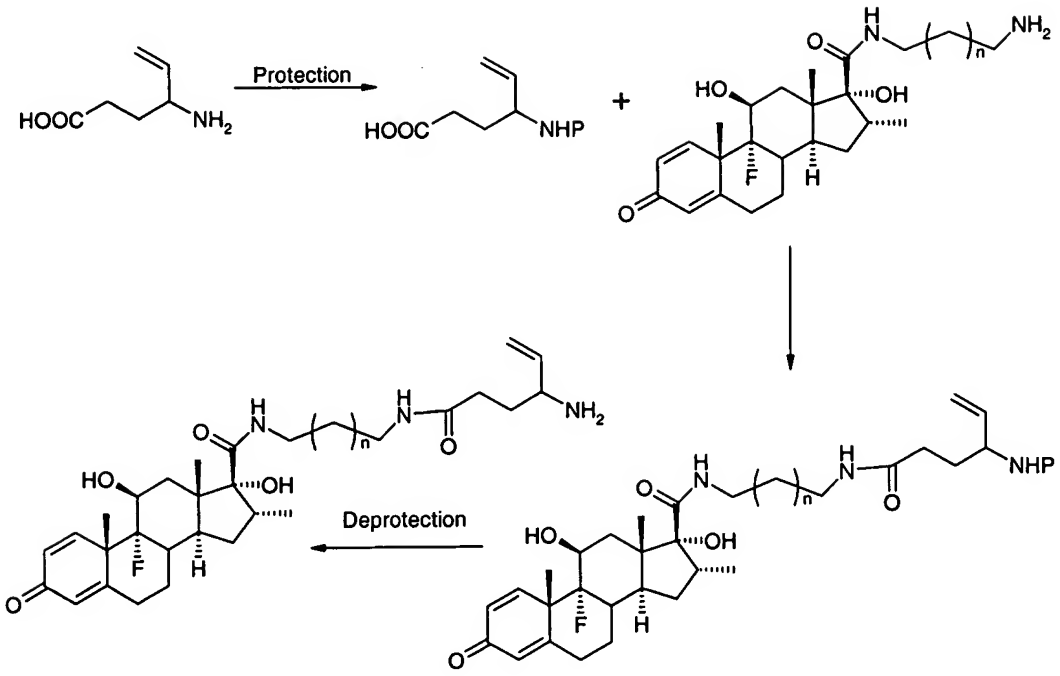


Figure 6b. Eflornithine

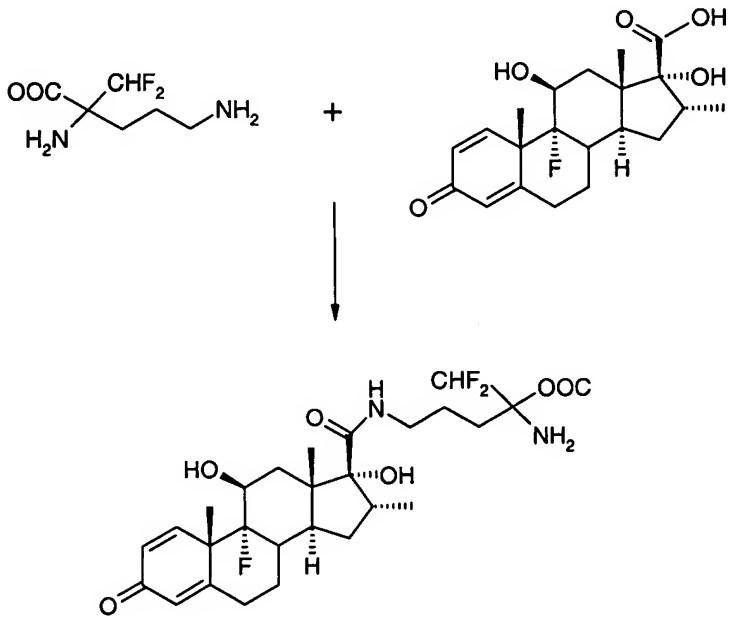
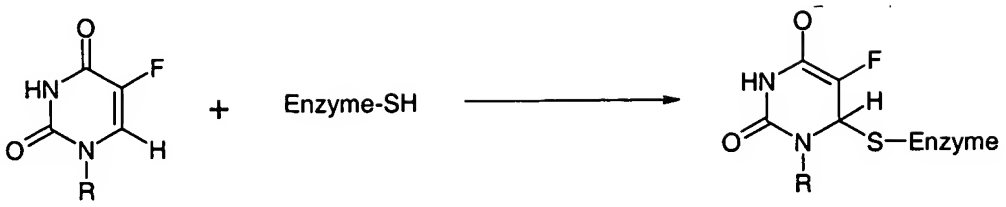
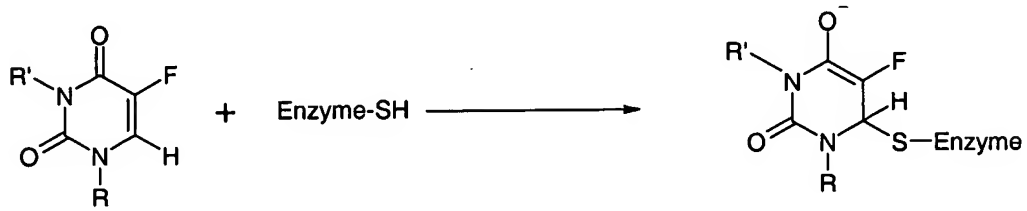


Figure 6c: Fluorouracil



Example of covalent bonding of ligand to the target (mechanism-based inhibitor)



R' = dexamethasone, FK-506 or combinatorial compounds

Figure 7: Covalent labeling of recombinant protein in living cells with fluorescein analogs

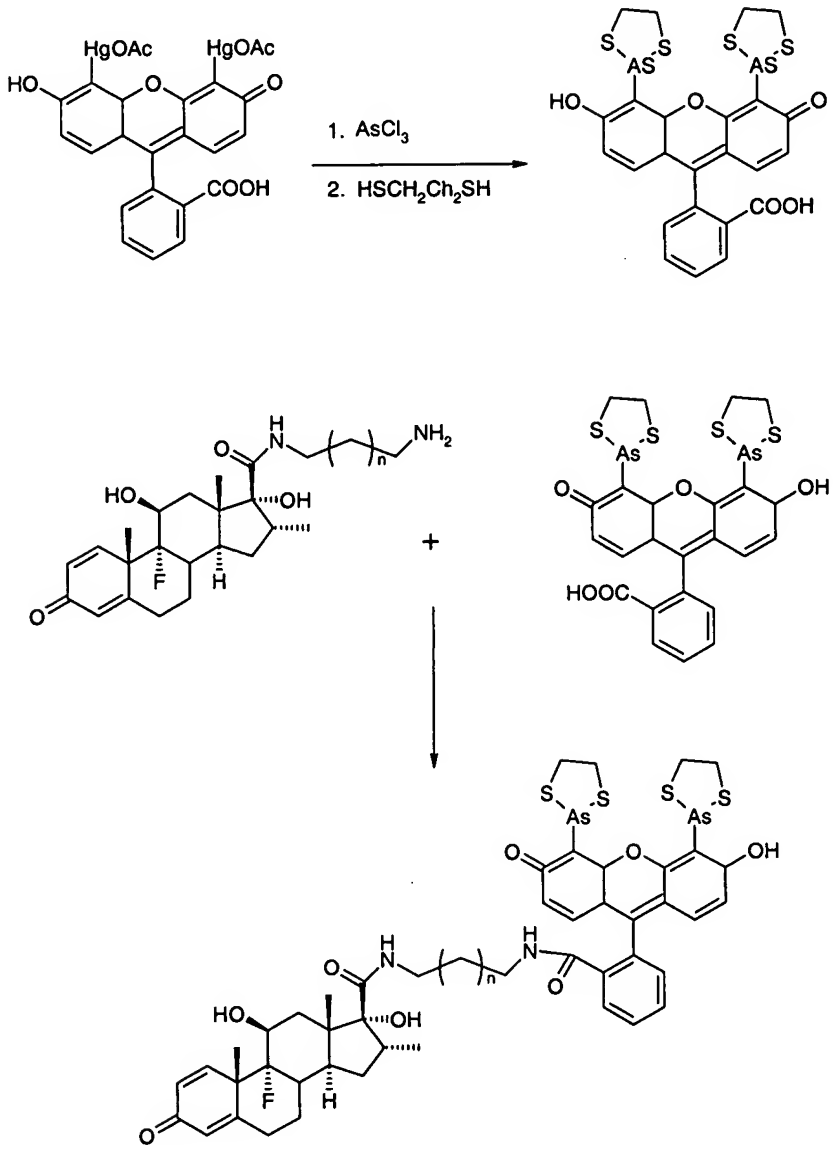
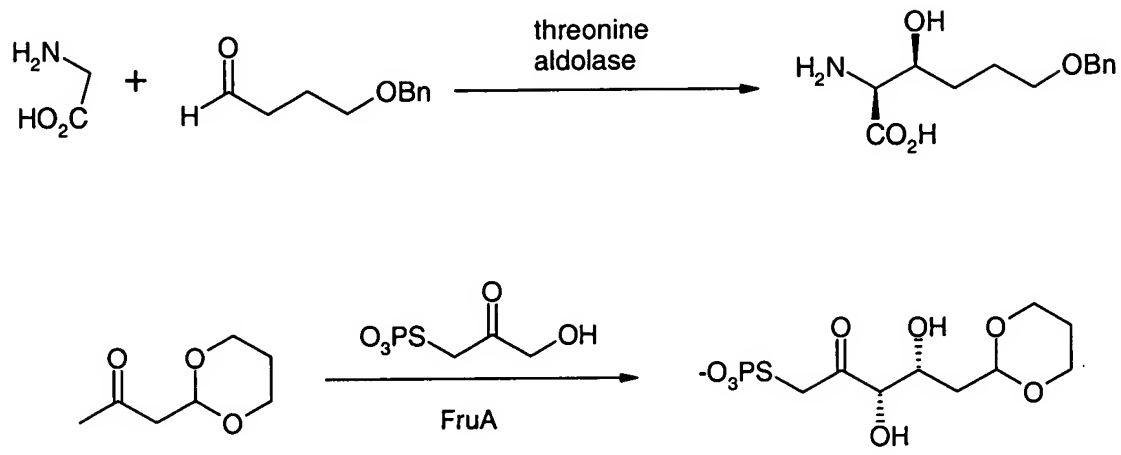


Figure 8: Biocatalyses: enzyme mediated c-c bond formation



Fru A = fructose 1,6-bisphosphate aldolase